ANY NUMBER SENT FREE BY BOOK POST

to those remitting 2s. in advance.

COLLECTOR & MAGISTRATE
28 AUG. 1904
LAHORE

THE JOURNAL OF INDIAN ART AND INDUSTRY

PRICE TWO SHILLINGS.

Vol. X.

JULY, 1904] [No. 87.

CONTENTS.

THE ELEPHANT IN INDUSTRY AND ART.

BY F. H. ANDREWS, ESQ.

(Lately Principal of the Technical School, Lahore; and Curator of the Punjab Central Museum).

Twenty-four Plates illustrating the Capture and Taming of the Indian Elephant.

Sacrificial Ladle.

Ivory Casket.

RAM SINGH DEL. MAYO SCHOOL OF ART LAHORE

Published under the patronage of the Government of India.

PHOTOGRAPHED, PRINTED, AND PUBLISHED BY W. GRIGGS, ELM HOUSE, HANOVER STREET, PECKHAM, LONDON.

LONDON AGENT—BERNARD QUARITCH, 15, PICCADILLY, W

IRON WORK.

From Objects and Drawings in the South Kensington Museum.

In 28 Parts, price 28/-.

LIST OF PLATES.

ENGLISH.

Plate 1. Details of wrought iron Grille, known as the St. Swithin Grille, in Winchester Cathedral.

,, 2. Wrought iron Grille in the Chapel of St. Anselm, Canterbury Cathedral.

,, 3. Wrought iron Screen at entrance to Henry V.'s Chantry in Westminster Abbey.

,, 4. Details of wrought iron work in Canterbury Cath.

,, 5. Details of wrought iron work in Winchester Cath.

,, 6. Wrought iron Screen from St. John's Church, Frome, Somersetshire.

,, 7. Wrought iron Panel and Gate in Winchester Cath.

,, 8. Wrought iron Screen in the Chapel of University College, Oxford.
Wrought iron Altar Rail in St. Philip's Church, Birmingham.
Wrought iron Bracket in Denyer Street, Chelsea.

,, 9. Wrought iron Balusters.

,, 10. Pair of wrought iron Mace Stands.

,, 11. Steel Rim Lock, in pierced and engraved brass case.

,, 12. Steel Lock in pierced brass case.

,, 13. Steel Lock in pierced and engraved brass case.
Steel Key.

,, 14. Steel Hinge, covered with pierced and engraved brass.

FRENCH.

,, 15. Oak Coffer, decorated with wrought iron scrollwork.

,, 16. Wrought and stamped iron Hinge for a coffer.
Wrought and stamped iron Hinge.

,, 17. Wrought iron Knockers.

,, 18. Wrought iron Knockers.

,, 19. Wrought iron Lock

,, 20. Wrought iron Grille (*Guichet*).

,, 21. Two wrought iron Candelabra.

,, 22. Two wrought iron Candelabra.

,, 23. Engraved steel Lock and Key.

,, 24. Wrought iron Door, painted and gilt.

,, 25. Two wrought iron Panels.

,, 26. Wrought iron Bracket.

FLEMISH.

Plate 27. Wrought iron Balcony.

GERMAN.

,, 28. Wrought iron splayed Lock for a Coffer.

,, 29. Wrought iron splayed Lock for a Coffer.

,, 30. Wrought iron Lock and Hasp.
Wrought iron Door Handle.

,, 31. Wrought iron Lock and Hasp.
Wrought iron Door Handle.

,, 32. Wrought iron Door Handles.

,, 33. Wrought iron Door Hinges.

,, 34. Oak Window Shutter, with wrought iron mountings

,, 35. Wrought iron Lock and Key.

,, 36. Wrought iron Bracket with bell.

,, 37. Wrought iron Grating for a fanlight.

,, 38. Pair of wrought iron Gates.

,, 39. Wrought iron Bracket and Sign.

,, 40. Wrought iron Hook for a Candelabrum.
Wrought iron Candelabrum.

,, 41. Two Wrought iron Window Gratings.

,, 42. Wrought iron Window Grating.

,, 43. Wrought iron Coffer.

,, 44. Top of wrought iron Coffer.

,, 45. Wrought iron Bracket.

ITALIAN.

,, 46. Pair of wrought iron Gates.

,, 47. Two wrought iron Panels.
Wrought iron Grille.

,, 48. Wrought iron Bowl Stand.
Two wrought steel Bowl Stands.

,, 49. Wrought iron Panel.

,, 50. Pair of wrought iron Gates.

,, 51. Pair of wrought iron Gates.

SPANISH.

,, 52. Wrought iron Knockers.

,, 53. Wrought iron Knocker.

W. GRIGGS,
HANOVER STREET, PECKHAM,
LONDON, S.E.

The Journal of Indian Art and Industry.

THE ELEPHANT IN INDUSTRY AND ART.

By F. H. ANDREWS, Esq.

(Lately Principal of the Mayo Technical School, Lahore; and Curator of the Punjáb Central Museum).

That the elephant, by reason of its inherent qualities of impressive bulk and strength, has ever been an attractive entity to man, there is abundant historical and archaeological evidence; and had it not possessed the additional attributes of tractableness, gentleness, and remarkable magnanimity, doubtless it would have occupied a great and dominating place among the evil monsters of Eastern mythology. But these amiable qualities, while holding the elephant exempt from any general imputations of evil, have also denied it the respect engendered of fear, and have acquired for it a somewhat lower regard than a more malevolent reputation might have secured. It was only natural that its great strength should be turned to profitable account by the dominant race, and accordingly the elephant has been used from time immemorial, as a vehicle and a combatant in peace and war, and to-day is extensively employed in Burma and elsewhere in hauling and stacking timber, and furnishes a most valuable means of transport over difficult country. It would appear from recent Board of Trade returns that, as an ivory producer, the Indian elephant (*Elephas indicus*) has but limited value in comparison with its African cousin (*E. africanus*), and the law that now prohibits its indiscriminate destruction for the sake of the small quantity of good ivory obtainable, or for mere sport, is a timely one. The skin does not in either species appear to have any value, and although it has occasionally been tanned, one may gather from the silence observed on this subject, by all those concerned with the commercial care of the animal, that the value of the resultant leather is not commensurate with the cost of tanning. Elephant hunting in India is therefore prosecuted on a very small scale.

The elephant formerly ranged over a much more extensive area in India than at present, but, owing to the interference of man, it has been driven to limited tracts of forest in Coorg, Mysore, Travancore and Orissa, and the lower hills of the Himalayan range to the north-east. It does not favour low-lying country, preferring quite considerable altitudes, so that they provide shady woods where tender young shoots of bamboo, wild fruits and succulent elephant grass (*saccharum spontaneum*) may be found; where overhanging branches and bushes lend him *chauris* wherewith to brush irritating flies from his sensitive skin, and where pools of good water are near for the frequent bath and cooling drink. He is very nervous and, owing to somewhat limited vision, displays in his wild state the utmost caution in his movements and is very easily alarmed. He depends for protection against surprise principally upon his senses of smell and hearing, which are very acute; and Sir J. Tennant says "their power of smell is so remarkable as almost to compensate for the deficiency of sight. The herd are not only apprised of the approach of danger by this means, but when scattered in the forest, and dispersed out of the range of sight, they are enabled by it to re-assemble with rapidity."[1] It is necessary, therefore, when hunting elephants, to track them very warily, considerable skill and experience being required to locate the herd without alarming them. When located, beaters are employed to drive them towards the *keddah* enclosure, by gently tapping their axes on the trees or making other signs of their proximity without actually discovering themselves to the sight of the quarry. The *keddah* "consists of a tolerably regular quadrangular figure containing probably 150 acres and surrounded by a trench one mile and a quarter in length and generally about eight feet wide and deep. . . . The trench is discontinued at the points where it would cross the elephants' paths. . . . In place of the trench at these points are ponderous gates made of logs, which, when not in use, are hauled up between trees, which serve as gate-posts. . . . The gates . . . being kept open at ordinary times the elephants pass along their accustomed paths, or rest or browse in the inclosure, unconscious that the former may be closed and the latter be turned into a prison on some fatal day."[2] Within this is constructed a smaller enclosure of strong fencing or ditching, towards which a funnel-like run is arranged. When all are within the outer enclosure the gates are dropped and secured. Subsequently the animals are driven into the inner stockade by way of the funnel-like approach and a strong gate is closed upon them.

The hunters then proceed to tie up the captives, assisted by trained elephants called *kunkis*, who play a very important part, and are said not only to exhibit a keen appreciation of the whole business, but also to thoroughly enjoy their work. The first object is to secure the hind-legs by tying them together, and then to treat the fore-legs in the same way, and in order to prevent the animal having freedom of movement during the process, two *kunkis*, each bearing a *mahaut* and a "nooser," quietly sidle up to the captive selected and, with assumed innocence, place themselves one on either side—heads towards the tail end of their victim—and close up tightly, so

[1] When looking over the exhibits sent from India to the Paris Exhibition of 1900, I could not but admire the large collection of imposing enlarged photographs giving vivid pictorial details of the mode of capturing and taming of the Indian Elephant by the Mysore State. I afterwards applied to the India Office for permission to use some of these photographs to illustrate one number of the *Journal of Indian Art and Industry*, with an account of the industrial side, and in the following number, the art side of the Indian Elephant. My application to the India Office was granted, and I hope these two numbers (Nos. 87 and 88, complete Vol. X.) will not be lacking in interest.—W. Griggs.

[2] *A Narrative of Elephant-catching in Mysore*, by G. P. Sanderson, 1891.

that, by reason of the aldermanic disposition of their bulk, the middle one is held as a wedge between two reversed wedges, rendering forward movement impossible, and any effort to retreat easily repressible by the trunks of the *kunkis*. The noosers now drop to the ground, and at the first opportunity slip the noose of strong but loosely twisted jute rope under one foot, pull it up tight above the ankle joint and bind the other to it. Sir J. E. Tennant tells, as an instance of the *kunkis'* understanding of the process, how a nooser having made several ineffectual attempts to slip the noose, the captive each time dropping his foot down too quickly, one of the *kunkis*, appreciating the difficulty, the next time the foot was raised slipped his own underneath and held it there until the rope was adjusted. These trained elephants never lose their temper, show the utmost tact and endeavour to disarm the suspicions of the victim by their casual and innocent demeanour, while yet keeping a very watchful eye to the business in hand; and when the trick is done they chuckle over the matter—that is, they swing themselves about in delight, flap their ears, and lift up dust and loose earth and scatter over their bodies—patting themselves on the back, as it were.

After being hobbled, the captive is tied to a tree. It is necessary to allow him as little rope as possible; and to draw him up tightly, the noosers "take a turn" round the tree and, as the *kunkis* bring the elephant nearer by wedging him up on either side, while a third butts him convincingly in the rear, they haul in the slack. In this process an elephant will sometimes be troublesome, and on an occasion recorded by Sir J. E. Tennant, when one succeeded in getting the rope twisted a few times round the tree so that it locked and would not haul, a *kunki*, seeing what the trouble was, put his forehead against that of the captive and firmly pushed him backwards round the tree until the rope was clear again.

After quieting down, the new captive is taken to bathe and drink. He is dressed in a strong harness of rope and is attached by three long stout traces to the same number of *kunkis*. The arrangement is triangular, the *kunkis* being the angular points and the captive the centre, so that breaking away is impossible, and yet a certain freedom is allowed. Upon his return from the bath, he is secured in the elephant lines, where, after some more ineffectual struggling, he at last becomes more reconciled, and the trainers proceed to accustom him to being handled and to teach him what a *mahaut* is, by placing the human yoke upon his neck.

Many instances have been recorded of the elephant dying of a broken heart when he has been subjected to severe ill-treatment or injustice, and it behoves those who have charge of these sensitive and affectionate creatures to treat them well. No animal is more appreciative of kindness, none more distressed by unfair treatment.

When a captured elephant injures himself by his struggles so seriously that he dies or has to be killed, his great body is consigned piecemeal to the fire. His spirit returns to Brahma, perhaps to be reincarnated in the body of a *mahaut* in its next birth as a reward for its sufferings in its erstwhile tenement!

In India, when an elephant is killed, parts of the flesh are sometimes eaten, and the foot is even considered a delicacy. The African natives are fond of the flesh of their elephant and used to hunt it solely for food, neglecting the ivory as profitless bone. But these must have been savages far from the reach of even the echoes of civilization, for ivory and bone have been in demand for the Arts from a very early date, and Herodotus says the Ethiopians brought elephant tusks as part of their annual gift to King Darius, while Marco Polo records his astonishment at the great trade in ivory carried on at Zanzibar.

In Eastern literature the elephant is constantly slipping from the pen of the poet. It is customary with us to cite the elephant as the type of heavy ungainliness, and we quote the Bard's only reference:

> "The elephant hath joints, but not for courtesy;
> His legs are legs for necessity, not for flexure."

The Eastern poet, on the contrary, with more intimate knowledge of his subject, finds in the elephant his synonyms for the superlative of strength, grace and symmetry. The soft and graceful gait of an Indian woman is likened to that of an elephant; and in the East, where a woman's garments permit freedom of movement and sympathetic co-operation of the muscular system this is an apt comparison. In the west the natural swing of the hips, only possible in conjunction with the free, lithe play of the muscles of the foot and torso, is restricted and becomes jerky. The divinely exquisite Sita (surely one of the sweetest characters in any literature, over whose abduction by the lord of Lanka such fearful carnage ensued) possessed "thighs like the trunks of elephants." And the lord himself, the Rakshasa god Ravana, although an evil person addicted to wine and very quarrelsome, was still god-like in the majesty of his form, and he had "fingers like the trunks of elephants."

The elephant has an exquisite sense of balance and most supple joints, and can even make obeisance with profound dignity. The sense of weight and balance is exhibited in his manner of stacking timber in Burma, in the way he passes things up in his trunk to the *mahaut*, and in his extreme caution in walking over structures of doubtful strength. In Plate 84 the elephant is testing the strength of the flap of the truck let down as a bridge for him, and by his long stride seems to prefer to trust the solid ground. The grace of action of the right fore-leg ... nd delicate as the movement of a cat. In feeding, he picks up his food with the utmost daintiness,

weighting it to a nicety and gently knocking the dust out of it on his fore-feet, and decorously places it in his mouth.

By its general tolerance of man and its interest in human affairs, even to the enjoyment of some of its little vanities, the elephant has acquired in the East a position of *camaraderie* rather than of worshipfulness, except when, by a special favour of the gods, it is presented to the world in its albino form. As a white elephant it commands a most exalted position spiritually and temporally, for in its beautiful body has not the holy spirit of Buddha vouchsafed to be incarnated! It is, therefore, a greatly coveted object of possession, and in the 16th century was the *casus belli* of a prolonged struggle between the States of Siam, Pegu and Aracan, wherein five kings and many thousands of fighting men were killed. In temporal rank the white elephant took precedence of the heir apparent.

Nor is the elephant quite excluded from the circle of the Hindu Pantheon. As the good-natured and domesticated god Ganeśa he has just managed to get his head into the celestial community, for his body is after man's image. And this came about quite accidentally, according to a popular version of the matter which Mr. Lockwood Kipling characteristically gives as follows :—

"During one of the absences of the great lord Shiva, Parbati, his wife, taking a bath rubbed some tiny pellets off her skin and amused herelf by moulding them into the form of a child, till at last she breathed life into it. Shiva returned and was outraged to find a baby where no baby should be, so he promptly cut off its head with his sharp war quoit. Then Parbati explained, and Shiva said in effect : 'Dear me! this is very sad, why did not you speak sooner?' Then, catching sight of an elephant standing near, he cut off its head and clapped it on the decapitated baby. 'Now it's all right,' said he, 'I was always rather hasty.'"[1]

But as a reminder that in its distinguished position proper deportment is required of it, an *ankus* (elephant goad), placed in one hand of the son of Parbati, is ever held before the eyes of his incongruous head.

Another version of the affair is that upon the birth of their son, Shiva and Parbati, being very proud of it, issued invitations to their celestial neighbours to come and admire the baby. By an unfortunate mischance the god Sani was forgotten but uninvited came, and, in a towering passion, threw one scathing glance upon the innocent child's head with such fierce energy that it fell off! The assembled guests in dismay, frantically seeking to discover a remedy for this untoward calamity, came upon an elephant sleeping with its head towards the north. Something about this circumstance seems to have presented an obvious solution of the difficulty, for they at once struck off the head of the sleeping monster, and before the distracted mother could protest, or even understood their object, her decapitated darling was mended.

In reading the *Mahabharata* we are impressed by the great numbers of war elephants (especially when they are mad ones!) accompanying the contending armies; and the magnificence of pageants is convincing when we read of the hundreds of elephants bearing gold and silver howdahs, and gleaming and glittering with jewels set in their gorgeous trappings. The remarkable display of elephants at the recent great Durbar held by the Viceroy, Lord Curzon, on the historic plain around Delhi, recalled the glories of the pageants of the god-like Pandavas held in the heroic age in the same vicinity.

It must be admitted that the elephant shines best in peaceful functions. Even as he hath graces comparable to those of a woman, equally feminine and more human is the joy he experiences in being dressed to go out. Deck him in "rich and gay housings of inlaid cloth," in velvet and cloth of gold, gilded chains suspending melodious bells and tinkling trinkets, gold and silver howdah like a small tower, jewelled carcanet and chaplet, and jingling bangles: festoon him all about with variegated silken cords with dangling tassels, and finally paint his face in the approved mode, and he will be supremely happy. But, an you love him, do not ask him to fight. He is a creature of peace, and war worries him. That he has been known to fight well and show extraordinary bravery there seems little doubt, and among the ancients in the East he was much sought after as a powerful adjunct to their armies. So much so that the Assyrian queen Semiramis, in default of the real article, caused to be constructed numbers of artificial elephants, which were carried to battle on camels; and not entirely without success, for the horses of the opposing host, accustomed to elephants, advanced boldly enough against the "property" ones, but retired in a shockingly bewildered state of mind when they scented the pungent fetor of the hated "*oont*" under the respectable form of the elephant. Akbar, also, in storming the fort of Chitor, took with him 300 elephants who literally trampled the Rajpúts "like grasshoppers under their feet." But the experience of Porus, who took his army of elephants to resist Alexander on the banks of the Hydaspes, when in their mad retreat they trampled and destroyed the warriors they came to support, was similar to that of the king of Mien (Burma) when his two thousand war elephants, "on each of which," says Marco Polo, "was set a tower of timber . . . carrying from twelve to sixteen well-armed fighting men," broke and fled before the arrows of the Tartar bowmen, and rushed

[1] *Beast and Man in India*, by Lockwood Kipling, C.I.E.

into the woods "dashing their castles against the trees, bursting their harness, and smashing and destroying everything that was on them"; and like catastrophies happened repeatedly. It has long been realized that, except as a means of transporting commissariat, guns and other munitions of war, they are a danger rather than a help.

Pitted against one another, they will fight desperately. For the royal sport of elephant-baiting special quadrangles, like large bear-pits, were provided by the old rulers in their palaces; and from beautiful marble terraces one may still look down into the now quiet and deserted arenas, where, in the good old days, these terrific contests took place to cheer the spirits of a monarch greatly bored. Bishop Heber[1] mentions how, during his visit to Baroda in 1824, the Gaekwar offered to bait an elephant for his entertainment, "a cruel amusement, which is here not uncommon." While at Jáipur the good Bishop was "shewn five or six elephants in training for a fight. Each was separately kept in a small paved court, with a little litter, but very dirty. They were all what is called '*must*,' that is, fed on stimulating substances to make them furious, and all shewed in their eyes, their gaping mouths, and the constant motion of their trunks, signs of fever and restlessness. Their mohouts seemed to approach them with great caution, and on hearing a step, they turned round as far as their chains would allow and lashed fiercely with their trunks." Bernier describes elephant contests as taking place on the broad sands of the river at Delhi, just below the Fort, where, from their chambers, the Emperor and his principal ladies and courtiers could view them.

As a vehicle the elephant is usually reliable, seldom causing any anxiety. Through jungle he makes his own road where none exists, by his great strength and weight turning aside obstacles which, to a lesser animal, would be sufficient to arrest progress. He is a good climber, and in ascending hills, Mr. Sanderson says, always selects the best gradients; and where a slope is very steep and no other available, with his powerful toes he will cut himself a zig-zag path. Over swampy ground he is sure-footed, and he swims streams with ease. A curious accident which happened to the elephants of the Emperor Aurangzebe when on his way to Kashmir, accompanied by his court, is mentioned by Bernier in a letter to M. Merveilles in 1665. He says:—

"A strange accident cast a gloom over these scenes and damped all our pleasure. The king was ascending the *Pire-penjala* mountains . . . followed by a long line of elephants, upon which sat the ladies. . . . The foremost, appalled, as is supposed, by the great length and acclivity of the path before him, stepped back upon the elephant that was moving on his track, who again pushed against the third . . . and so on until fifteen of them, incapable of turning round or extricating themselves in a road so steep and narrow, fell down the precipice."[2]

Dr. M. A. Stein draws attention to the coincidence that this accident should have occurred so close to the spot where local tradition places an incident related by Kalhana in his *Rajatarangini*:—

"The Chronicle, I.302 sqq., relates of King *Mihirakula*, whose identity with the White Hun ruler of that name (*circ.* 515-550 A.D.) is not doubtful, that when on his return from a tour of conquest through India he reached the 'Gate of Kashmir,' he heard the death-cry of an elephant which had fallen over the precipice. The gruesome sound so delighted the cruel king that he had a hundred more elephants rolled down at the same spot."[3]

The position of the elephant in regard to Art is one of considerable importance. As already mentioned, *in propria persona* he is an imposing and highly decorative feature in pageants. Pictorially he figures constantly, in all ages, in both sculpture and painting; architecturally he is variously a telemon, a cantilever, a finial, and so on; and in the ivory he furnishes he exercises universal decorative influence. The ubiquitous *makara* of Southern and Eastern architecture seems nothing but a highly grotesque elephant with a considerable strain of the mammoth and a reminiscence of the crocodile.

The elephant has a limited place in European heraldry, but occurs frequently on coins and seals, sometimes proper and sometimes as the capital element of a composite grotesque monster, or as a crest.

These matters will be dealt with in detail later.

[1] *Narrative of a Journey through the Upper Provinces of India.* Reginald Heber, D.D.

[2] *Travels in the Mogul Empire.* Bernier (A. Constable, 1891).

[3] *Memoir of the Ancient Geography of Kashmir* by M. A. Stein (Calcutta, 1899).

LIST OF ILLUSTRATIONS.

62, 63, 64. Haunts of the elephant. 65. The Keddah Valley. 66. The impounding stockade. 67. Raising the gate of the smaller enclosure. 68. Sanderson's improved iron drop-gate for Keddahs. 69. The herd in the impounding stockade. 70. Preparing to charge. 71, 72, 75. Securing the elephants. 74. The elephant secured. 75. A refractory tusker. 76. Securing a young elephant. 77. Leading the captives out of the stockade. 78. The captives drinking. 79. A tusker being taken to drink. 80. The captured elephants secured in the lines. 81. Taming a newly captured elephant. 82. Holiyars burning the carcase of an elephant. 83. The elephants being entrained. 84. Unloading a tusker from a railway truck. 85. Forest tribes of Mysore: the "Kurrubers." 86. Sacrificial Ladle. 87. Ivory Casket.

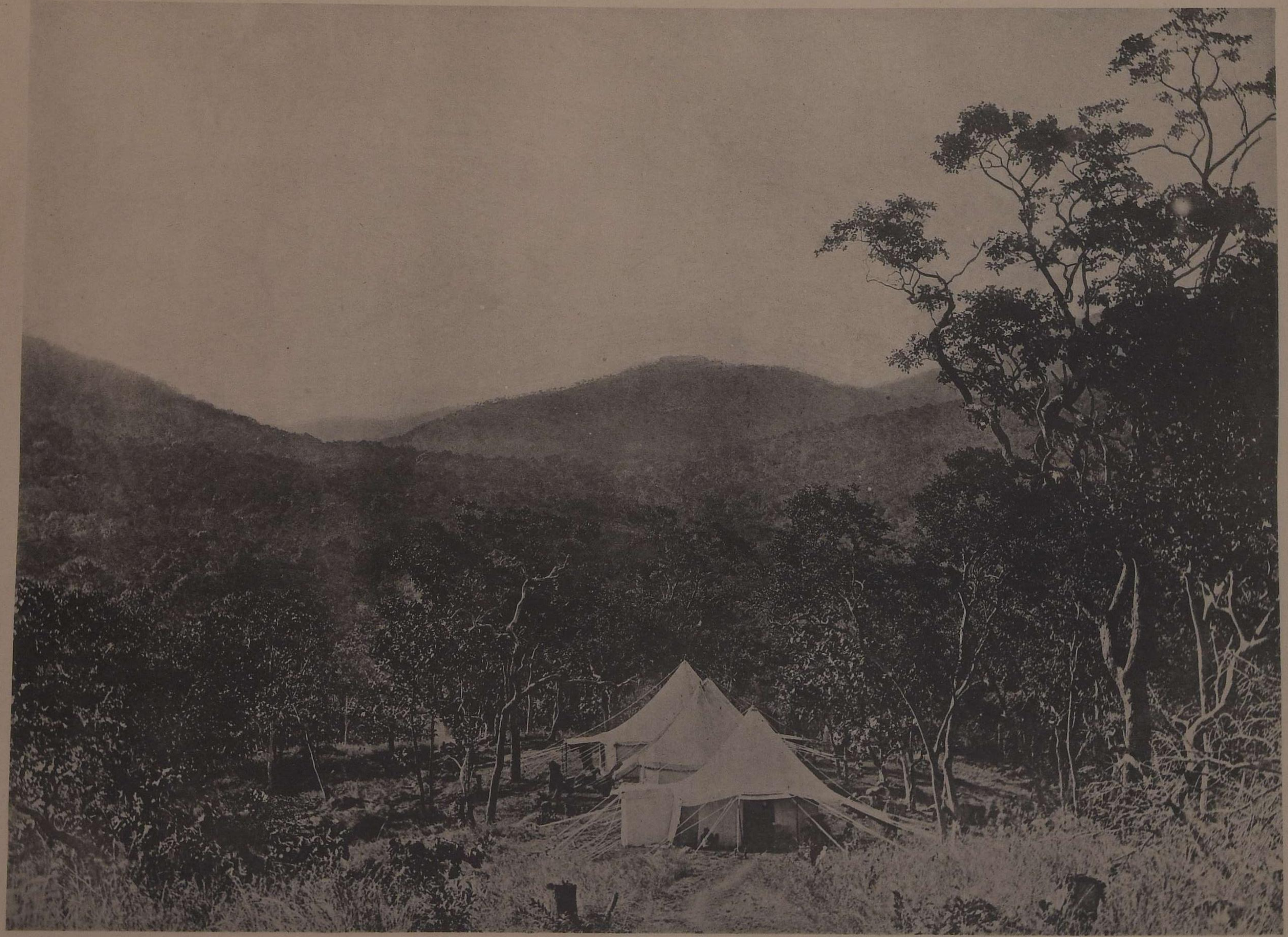
62.—Haunts of the Elephant.

The nature of the forests which elephants usually frequent.

63.—Haunts of the Elephant.

The nature of the forests which elephants usually frequent.

64.—Haunts of the Elephant.



65.—The Keddah Valley.

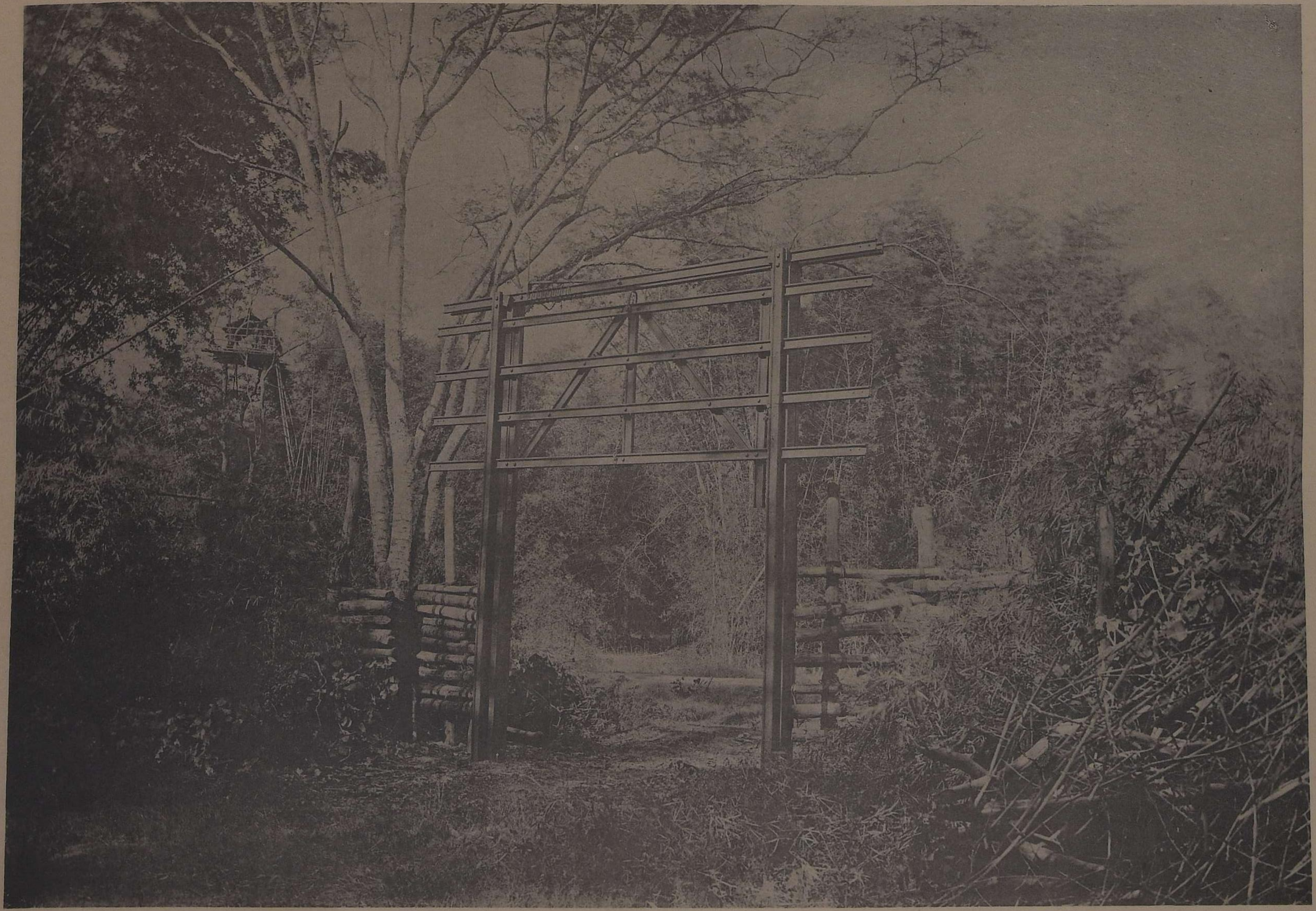
On information from the trackers of a herd being located, hundreds of men are requisitioned from the surrounding forest hamlets to act as beaters. They are marshalled on arrival, and on being led behind the herd by the trackers, gradually drive it towards the "Keddah."

66.—The Impounding Stockade.

A "Keddah" consists of two enclosures, into the largest of which, many acres in extent, the elephants are first driven and allowed to rest for a day or so to quieten down.

67.—Raising the Gate of the Smaller Enclosure.

About fifty beaters may be seen hauling on the hawser to raise the gate. These men are representative of the major portion of the agricultural population of the State.



68.—Saderson's Improved Iron Drop-Gate for Keddahs.

69.—The Herd in the Impounding Stockade.

This shows the manner in which the elephants herd together when they are in fear of some danger threatening them. They are watching the entrance of the "Koomkies" with the "Mahouts."

70.—Preparing to Charge.

The female elephant with the calf in the foreground is prepared to be aggressive.

71.—SECURING THE ELEPHANTS: THE FIRST OPERATION,

The "Koomkies" (tame elephants) so place themselves that the wild one cannot move in any direction; the "Noosers" now slip down and proceed to tie the wild elephant's hind-legs together. This is a service of great d[illegible] to "kick" on fee[illegible]

72.—Securing the Elephants: the Second Operation.

After hobbling the elephant, a stout rope is passed round its legs. This one of the "Koomkies" takes between its teeth, and guided by the driver, drags the captured elephant.

73.—Securing the Elephants: the Final Operation.

The elephant's hind-legs being tied to a tree, a stout rope is passed around its neck and the end secured to another tree. The manner of doing this is shown on the right of this pictur

74.—The Elephant Secured.

This shows the result of the three previous operations. The elephant at first strives to get free, and frequently injures itself in its struggles. The elephants are kept in this fashion for a few days, and being well cared for, they soon lose a great deal of their fear of man. The eleph[illegible] in the picture is a female with its calf; these are very savage when approached by the men.

75.—A Refractory Tusker.

76.—SECURING A YOUNG ELEPHANT.

The large elephants having been secured, the calves have to be attended to. A "Koomkis" (tame elephant) is kneeling down so as to allow the rider to pass a rope around the calf's neck.

77.—Leading the Captives out of the Stockade.

The elephants, having become accustomed to the sight of men near them, are taken
... drink. The ... an immense amount of

78.—The Captives Drinking.

On removal from the impounding stockade the elephants are taken down to the river, between two tame ones, to quench their thirst and to bathe.

79.—A Tusker being taken to Drink.

A tusker is generally vicious and takes longer to tame than a female. They are usually led down to the river by two elephants, and a rope on one of their hind legs is attached to a third elephant behind.

80.—The Captured Elephants secured in the Lines.

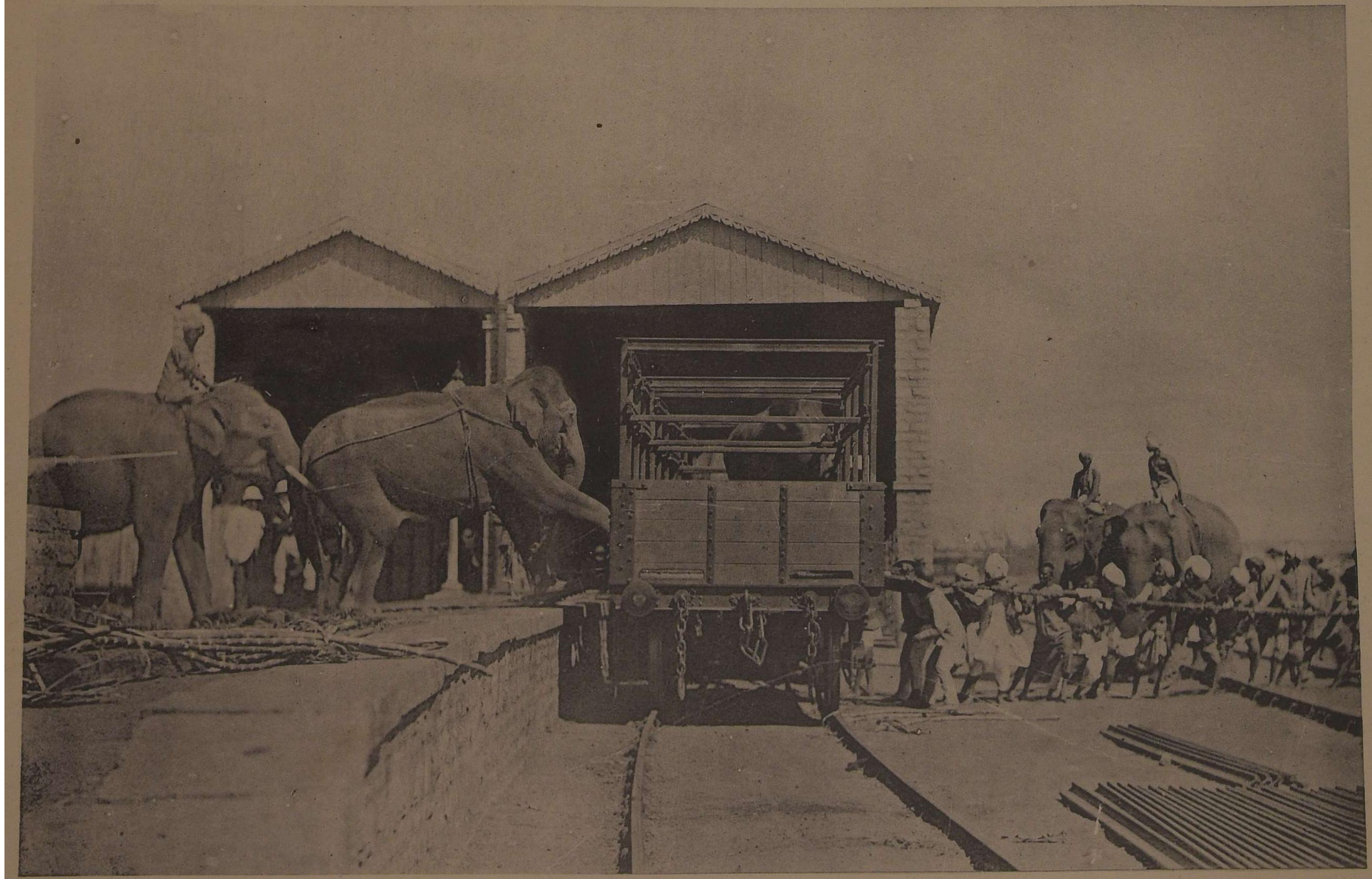
The elephants having quenched their thirst and b[illegible] taken to the elephant [illegible] coming reconciled to

81.—Taming a newly captured Elephant.

Men with spears are stationed in front to punish any unruliness whilst the elephant is being handled and taught to bear a rider.

82.—Holiyars Burning the Carcase of an Elephant.

The elephants that succumb to the injuries they receive in their efforts to escape after capture, have either to be buried or burned. The picture represents a gang of "Holiyars" (low caste villagers) cutting up and burning a carcase.



83.—The Elephants being Entrained.

In a few weeks the elephants are sufficiently docile to be despatched by rail to one or other of the recognised centres for sale. For entraining, a stout rope is secured round one of the elephant's fore-legs and passed through the open side of the truck. A number of men haul on this whilst a tame tusker assists in the rear by pushing and occasional prods with its tusks.

84.—Unloading a Tusker from a Railway Truck.

A tusker in the act of walking out of a railway truck—a good illustration of the docility of a well-trained elephant.

Forest Tribes of Mysore: the "Kurrubers."

PHOTOGRAPH PAINTED BY J. J. WILLIAMSON.

W. G

8 ... IAL LADLE. Cingalese. 18th century.

SOUTH KENSINGTON MUSEUM. W. GRIGGS & SO[NS]

Casket. Travancore, India. 17th century.

To be Privately Printed for Subscribers at £3 : 3 : 0 net.

35 Coloured Plates, in facsimile, by W. Griggs, on hand-made paper in Demy folio, with Monograph by VISCOUNT DILLON, F.S.A.

ALBUM OF JACOBE,

Master Workman at the Armoury, Greenwich

1590.

It is proposed to publish in facsimile the above-mentioned work as a valuable record of the Armourer's art as practised in England in the second half of the sixteenth century.

The Album contains drawings in ink and colours of suits of armour made by this master for several of the most famous courtiers and soldiers of the reign of Elizabeth.

Amongst these are suits for the Dukes of Finland and Norfolk; the Earls of Leicester, Sussex, Worcester, &c.; Lord Scrope; Sir John Smith, Sir Henry Lee, Sir C. Hatton, &c.

Special interest attaches to this MS., as it formerly belonged to the Harleian Library, and of the suits of armour therein figured some of the finest are still in existence. Of these the following may be mentioned:—Earl of Pembroke, K.G., now at Wilton; George, Earl of Cumberland, at Hothfield; Sir Christopher Hatton, purchased from the Spitzer collection for £2080; Sir Henry Lee, K.G., Master of the Armoury to Queen Elizabeth and James I., now in the hall of the Armourers' and Braziers' Company; the Earl of Worcester, in the Tower of London.

Although armour in England was, at the time referred to, fast disappearing from use, the suits shown in the work were all of a high class of workmanship and remarkable for their excellence, no less than interesting as the personal and intimate panoply of some of the brightest stars of the golden age of Elizabeth.

It is hoped that the publication of this unique MS. may lead to the identification of other suits and portions of armour still scattered through the country, and as yet not correctly connected with famous names in English history.

The reproductions will be accompanied by a short note on the MS. and brief notices of the individuals for whom the suits were made.

500 PHOTOGRAPHS OF THE ANCIENT MONUMENTS, TEMPLES, AND SCULPTURES OF INDIA.

THE SECRETARY OF STATE FOR INDIA IN COUNCIL granted permission to use the very large collection of photographic negatives of Ancient Buildings, Sculptures, &c., from all parts of India, now in the possession of the India Office. These illustrate very fully the history and development of the various styles of Indian Architecture from the earliest times, in Buddhist, Brahmanical and Jaina Caves to Dravidian, Chalukyan, Indo-Aryan, and Saracenic temples, mosques, and other buildings. They constitute an indispensable series of illustrations of the art, history and mythology of India, and are of the very highest importance and interest to Orientalists, Artists and others, in University and Art Libraries, Oriental Institutes, &c.

These Indian archæological photographs are regarded by experts who have seen them to be so important for the study of Oriental Art and History that the present work was undertaken to supply a felt want. It is to consist of three portfolios, and is published by subscription.

After the work was commenced, it was found that a large and important collection of photographs in the Imperial Museum at Calcutta was also available, but their introduction has caused delay in issuing the first part. Parts II and III will follow in rapid succession, as the plates have been very nearly all selected and printed.

Part I contains 170 plates, of which 26 illustrate the Bharhut Stûpa; 19, the Sânchi Stûpas; 6, the Sârnâth remains; and 83, the many interesting Gandhâra or Græco-Buddhist sculptures found around Peshâwar. There are, besides, illustrations of Aśoka inscriptions, Bhâjâ Cave Temples, Mathura sculptures, &c. The letterpress refers to all published sources of information respecting the different groups of remains, sculptures, &c.

Part I (170 plates) is now ready. Parts II and III are nearly ready.

LANTERN SLIDES OF THIS SERIES ARE UNDER PREPARATION FOR LECTURE PURPOSES. PRICE £20 PER SET OF 500.

Subscribers for slides are invited to send in their names without delay, as only 25 sets are being made.

W. GRIGGS & SONS, Ld., Elm House, Hanover Street, Peckham, London, S.E.

THE JOURNAL OF INDIAN ART AND INDUSTRY. Published Quarterly. Richly illustrated with numerous plates in colour and gold, illustrative of the Arts, Architecture, Industries and Manufactures of Hindustan. Containing Papers on Indian Gold, Silver, Copper, Brass, and other Metal Art Ware; Wood and Ivory Carving; Bidri Ware, Lacquer, Enamelling, Inlaid Work; Architecture and Architectural Decoration; Pottery and Porcelain; Embroidery, Silk and Cotton Industries; Cloth Stamping and Dyeing; Bookbinding and Decoration; &c., by Sir EDWARD C. BUCK, LL.D.; Sir GEO. M. BIRDWOOD, C.S.I., LL.D.; J. L. KIPLING, C.I.E.; E. B. HAVELL; Dr. JAMES BURGESS, C.I.E.; EDMUND W. SMITH, Archæological Survey; B. H. BADEN-POWELL, C.I.E.; Mrs. RIVETT-CARNAC; Col. J. H. RIVETT-CARNAC, C.I.E.; Col. Sir S. S. JACOB, C.I.E.; Brigade Surgeon Lieut.-Col. T. H. HENDLEY, C.I.E.; Captain C. W. RAVENSHAW; Colonel Sir R. C. TEMPLE, C.I.E.; B. A. GUPTE; T. N. MUKHARJI; &c. Vol. I. [parts 1—16]; Vol. II. [parts 17—24]; Vol. III. [parts 25—32]; Vol. IV. [parts 33—37]; Vol. V. [parts 38—45]; Vol. VI. [parts 46—53]; Vol. VII. [parts 54—60]; Vol. VIII. [parts 61—69]; Vol. IX. [parts 70—80]; Vol. X. [parts 81, 82, 83, 84].

A few copies of Vol. I. are reserved for those requiring complete sets.

CASES FOR BINDING (blocked in gold) can be supplied at 5/- each and postage.

The Journal will be sent FREE BY BOOK POST to any part of India or within the Postal Union, rolled solid, to those remitting 2/- for each part in advance, by

W. Griggs & Sons, Ld., Elm House, Hanover St., Peckham, London.

EXTRACTS FROM PRESS NOTICES.

"One of the most sumptuous specimens of colour printing ever produced is the *Journal of Indian Art and Industry* (Messrs. W. Griggs and Sons, Peckham, S.E.). It consists of facsimiles of some of the most valuable volumes in the Royal Library at Windsor Castle. Among them is the Koran. Each is reproduced with its artistic eccentricities, and the whole forms a volume of rare beauty and interest."—*Echo,* London, 4 Sept., 1893.

"The latest issue of the *Journal of Indian Art and Industry* (W. Griggs, Elm House, Hanover Street, Peckham, London) is devoted to Persian and Indian Bookbindings. The explanatory paper is written by Surgeon Lieut.-Colonel Thomas Holbein Hendley, C.I.E., who says the best specimens of bookbinding that are now made in India come from Ulwar, and are doubtless of Persian origin. There are thirteen page-plates of bindings produced with all the care for which Mr. Griggs has established his reputation. Seven of these are from "The Royal and Historical Bindings from the Royal Library, Windsor Castle"; three are from "Memorials of the Jeypore Exhibition"; and three from "Ulwar and its Art Treasures"—*English Mail.*

"Lovers of artistic bookbinding, and, indeed, art amateurs generally, have just had brought within their reach some superb illustrations of the handiwork of Persian and Indian craftsmen. No. 43 of the remarkably cheap and sumptuously-printed *Journal of Indian Art and Industry* contains no less than 13 large quarto-sized chromo-lithographic reproductions of binding and illuminations of the best Persian and Indian periods, the originals of these superb illustrations being among the most cherished examples of the Royal Library, Windsor Castle, the Jeypore Museum, and the Ulwar Art Treasures. The taste of the Persian and Indian craftsman in colour and design seems still quite unapproachable; the examples before us seem to point to ages of evolution and progressive culture to account for their consummate beauty and simplicity. Such examples of what the older civilisations have to give us should be in every art school in the kingdom. The work is printed in a luxurious style by Mr. W. Griggs, Elm House, Hanover Street, Peckham, and published under the patronage of the Indian Government. The present part is priced 2/–, an unaccountably low figure for such a repository of Oriental classicism. Had we a Grolier Club in London such work as this would create a passion among book-buyers and reform the present fashion of casing our books."—*Bayswater Chronicle,* 26 Aug., 1893.

LONDON:

W. GRIGGS & SONS. Ld., Elm House, Hanover Street, Peckham, S.E.